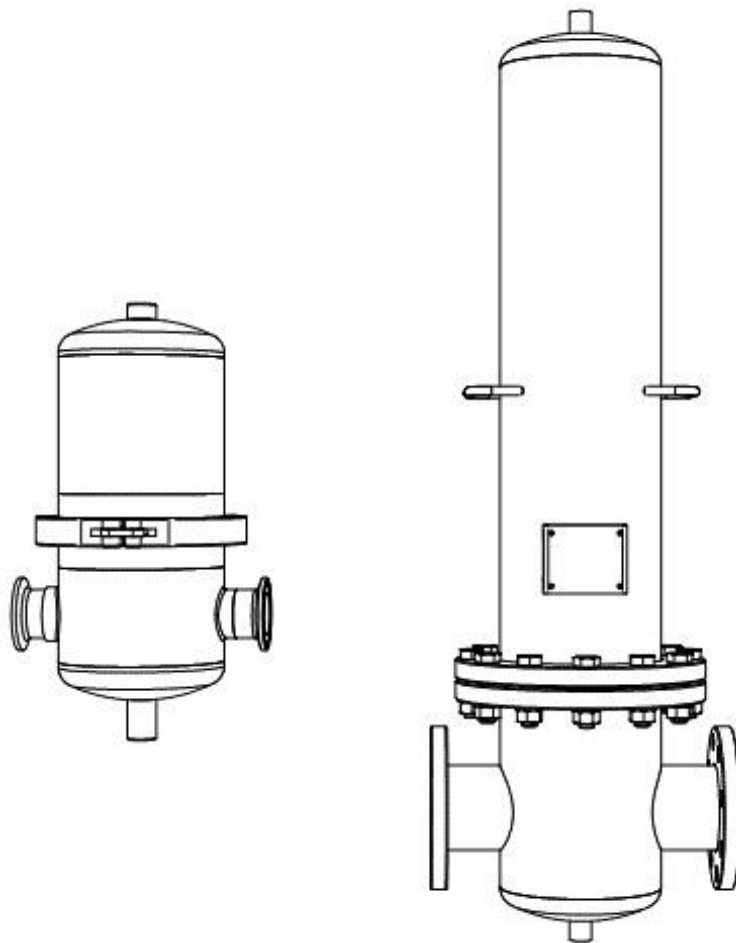




# Installation and operating manual

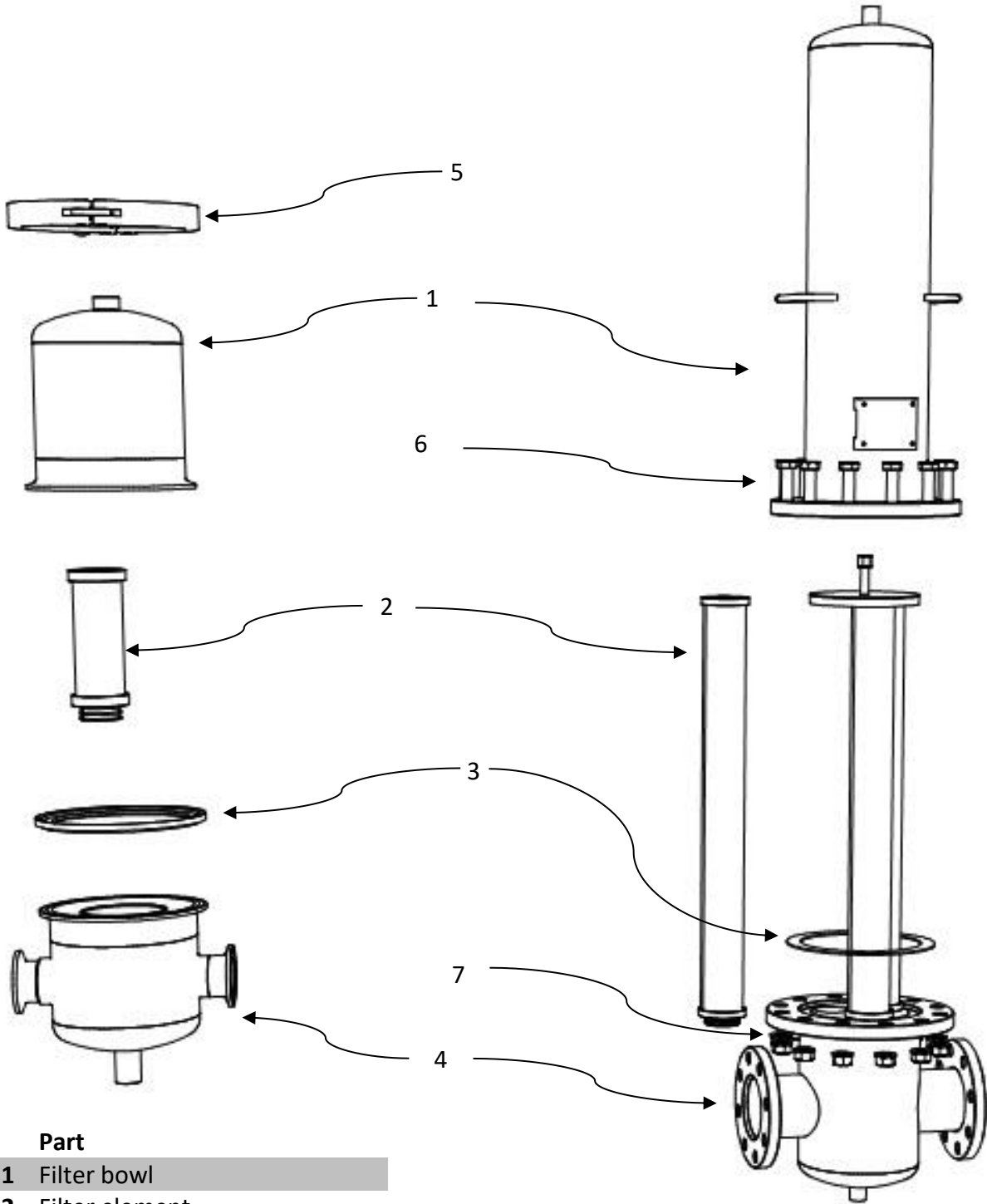
SF



Please read the following instructions carefully before installing filter housing unit into service. Trouble free and safe operating of the unit can only be guaranteed if recommendations and conditions stated in this manual are respected.



**Components**



- Part**
- 1 Filter bowl
  - 2 Filter element
  - 3 Housing sealing
  - 4 Filter head
  - 5 Clamp
  - 6 Screws
  - 7 Bolts and washers and washers



**Technical data**

FILTER HOUSING	PIPE SIZE	FILTER ELEMENT	OPERATING PRESSURE [bar]	FLOW CAPACITY		DIMENSIONS [mm]				VOLUME WEIGHT	
				[Nm <sup>3</sup> /h]	[scfm]	A	B	C	D	E	[l]
SF 0006	1N10/ Φ17,21x0310-VSF	16	75	44	220	130	76,1	74	1/8"	0,8	1,6
SF 0009	1N10/ Φ17,21x0410-VSF	16	105	62	248	130	76,1	74	1/8"	0,8	1,6
SF 0012	1N15/ Φ21,31x0420-VSF	16	150	88	256	128	76,1	78	1/8"	0,9	1,8
SF 0018	1N15/ Φ21,31x0520-VSF	16	225	132	288	128	76,1	78	1/8"	0,9	1,8
SF 0032	1N25/ Φ33,71x0530-VSF	16	315	185	315	180	114,3	99	1/4"	2,4	3,1
SF 0048	1N32/ Φ42,41x0730-VSF	16	600	353	368	181	114,3	90	1/4"	2,9	3,4
SF 0072	1N40/ Φ48,31x1030-VSF	16	900	530	449	174	114,3	65	1/4"	4,1	3,6
SF 0108	1N50/ Φ60,31x1530-VSF	16	1.260	742	591	188	114,3	110	1/4"	5,1	4,9
SF 0144	1N65/ Φ76,11x2030-VSF	12	1.680	989	741	205	139,7	136	1/4"	10,2	8,4
SF 0192	1N80/ Φ88,91x3030-VSF	12	2.400	1.413	1014	203	139,7	136	1/4"	12,5	10,2
SF 0432	DN100 3x2030-VSF	10	5.040	2.966	1005	410	219,1	183	1/2"	36	44
SF 0576	DN100 3x3030-VSF	10	6.720	3.955	1266	410	219,1	183	1/2"	43	45
SF 0768	DN150 4x3030-VSF	10	9.600	5.650	1337	480	273	267	1/2"	77	70
SF 1152	DN150 6x3030-VSF	10	13.440	7.910	1331	540	323,9	267	1"	110	80
SF 1536	DN200 8x3030-VSF	10	17.200	10.124	1496	660	406,4	306	1"	190	200
SF 1920	DN200 10x3030-VSF	10	21.120	12.431	1496	660	406,4	306	1"	190	201

Flow capacity at 7 bar(g), 20°C

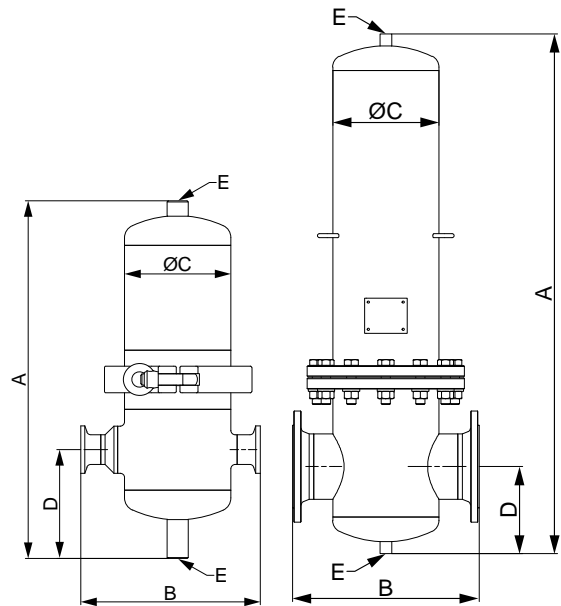
**MATERIALS**

Housing material	Stainless steel (quality 1.4301; on request 1.4404)
Sealing	EPDM (Optional FKM or SILICONE)
Housing finishes	Polished down to grade Ra0,8
Lubricant	(Optional Shell cassida grease RLS 2)

**CORRECTION FACTORS**

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).

CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C<sub>OP</sub>



[bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C <sub>OP</sub>	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13



Operating temperature	Up to - 150 °C*	Up to - 302 °F
Short duration (15min) temp limit	Up to 200 °C*	Up to 392 °F
Operating pressure	0 – 10 (16) bar(g)	0 – 145 (232) psi

\*Actual operating temperature depends on sealing material. For temperatures below 1,5°C contact manufacturer.

## PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU (Fluid group 2)

SF 006 - SF 048	Not required
SF 072 – SF192	Category 1, Module A
SF 432 - SF 1152	Category 2, Module H
SF 1536 - SF 1920	Category 2, Module H

There is Technical datasheet available. For additional technical specification, contact manufacturer.

### Safety instructions

The relevant safety at work and accident prevention regulations, plus operating instructions, shall apply for operating the filter. The filter has been constructed in accordance with the generally recognized rules of engineering. It complies with the requirements of directive 2014/68/EU concerning pressure equipment.

Ensure that installation complies with local laws for operation and routine testing of pressure equipment at the place of installation.

Operator/user of the filter should make himself familiar with the function, installation and start-up of the unit. All the safety information is always intended to ensure your personal safety.

- Do not exceed max. operating pressure or operating temperature range (see data label).
- The permissible working temperatures and pressures for ad-on parts and filter elements are given under Technical data for those ad-ons. Maximum temperature and pressure for assembled system is the lowest of any individual part.
- It is necessary to ensure that the unit is equipped with the corresponding safety and test devices to prevent the permissible operating parameters from being exceeded.
- Filter has been designed for a primarily static pressure. Rapid changes of pressure are not allowed.



- The medium used may not have any corrosive components that could attack the materials of the filter in a way that is not permitted. Do not use the filter in hazardous areas with potentially explosive atmospheres.
- All installation and maintenance work on the filter may only be carried out by trained and experienced specialists.
- It is forbidden to carry out any kind of work on the filter and piping, including welding and constructional changes, etc.
- A pressure gauge, which shows the operational pressure, must be installed in the unit, respectively in the pipeline.
- Depressurize the system before carrying out the installation work. The unit must be installed vertically in the piping.
- Ensure that filter is installed without any stresses.
- Use original spare parts only.
- Use the device for appropriate purpose only.
- There shouldn't be any tension between filter and installation. Filter shouldn't be subject to any stress, vibration or other influence that could cause damage to the unit.

### Appropriate use



SF stainless steel sterile filter housings are intended for removing of impurities from compressed air system. This appliance must be used only for the purpose for which it was specifically designed. All other uses are to be considered incorrect.

Specifically:

- filter is not intended for human breathing without proper additional equipment.
- filter can only be used for "GROUPE 2" fluids (PED 2014/68/EU).
- filter can not be used for explosive, toxic, flammable, corrosive and "GROUPE 1" fluids (PED 2014/68/EU).

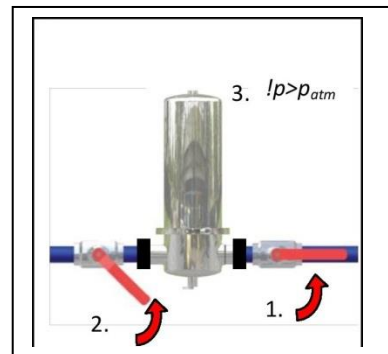
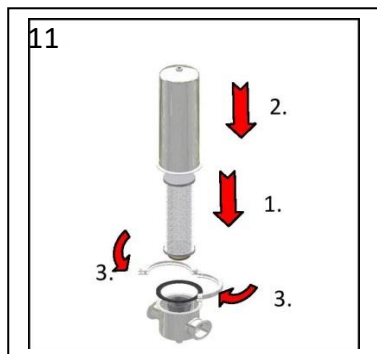
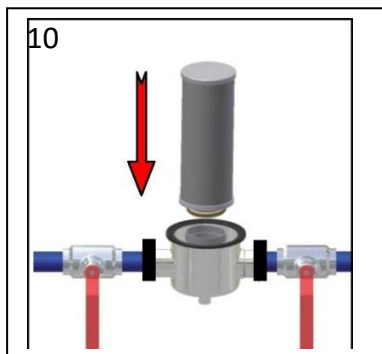
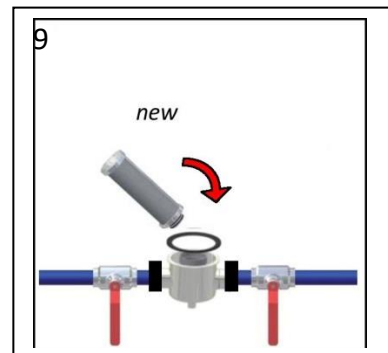
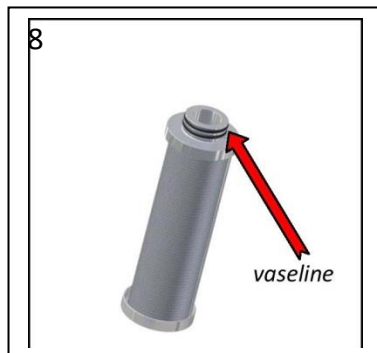
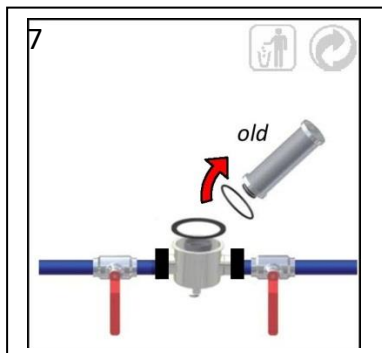
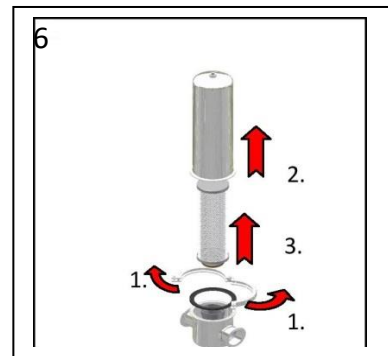
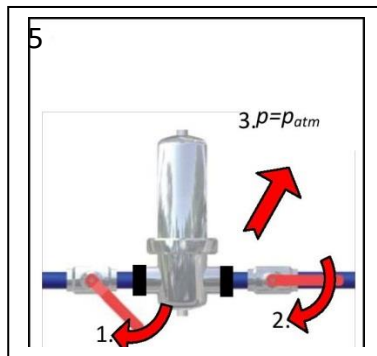
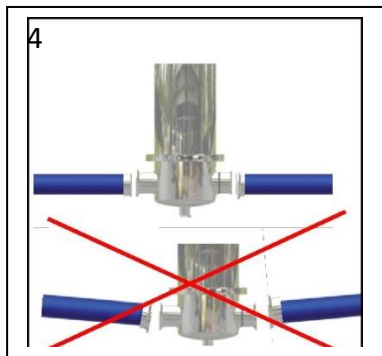
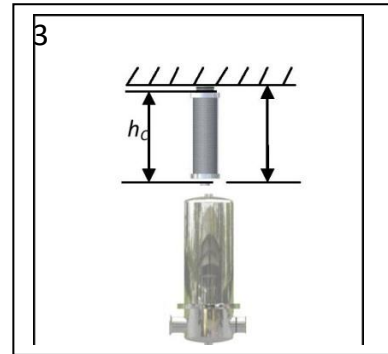
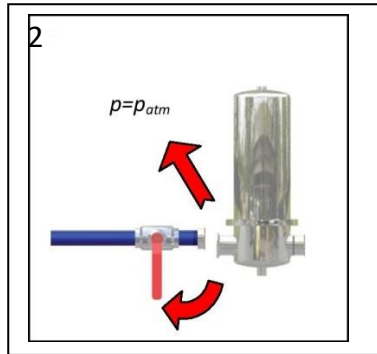
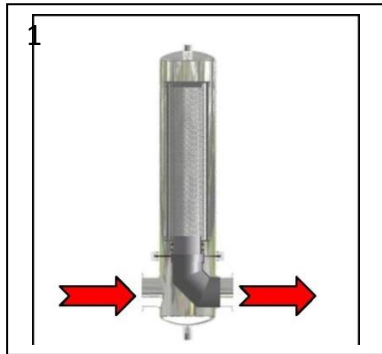
Warning: internal corrosion can seriously reduce the safety of installation: check it during changing the cartridge.

The manufacturer will under no circumstances be responsible for any damage resulting from improper, incorrect or unreasonable use.

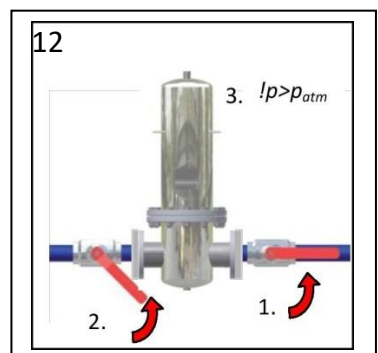
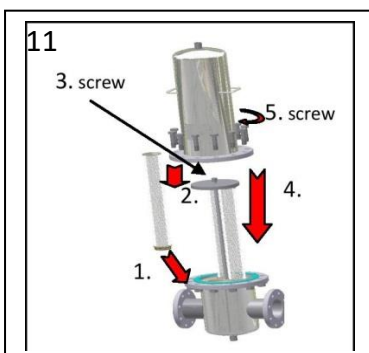
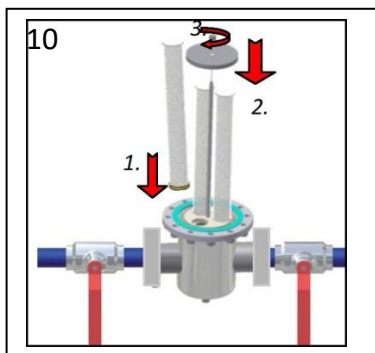
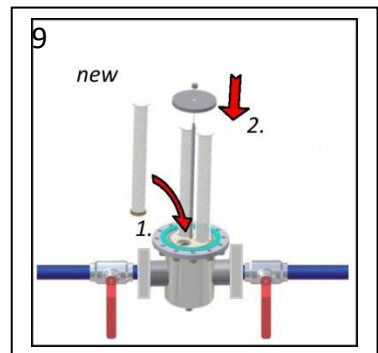
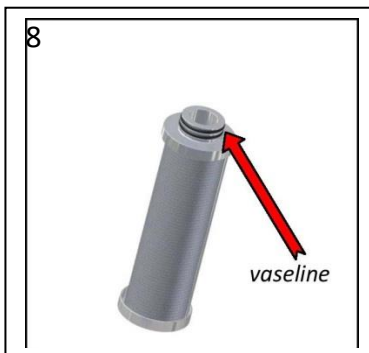
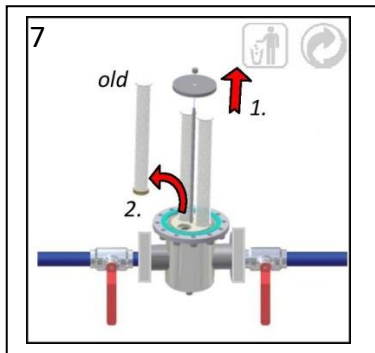
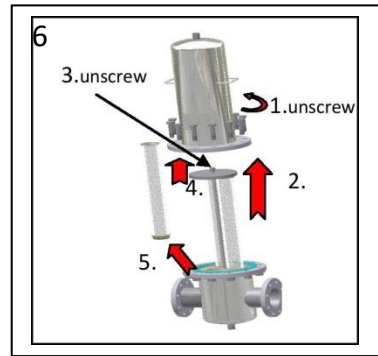
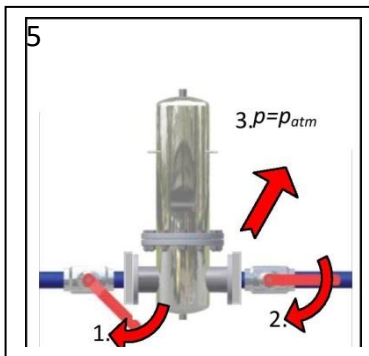
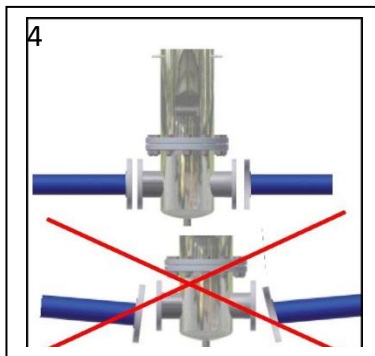
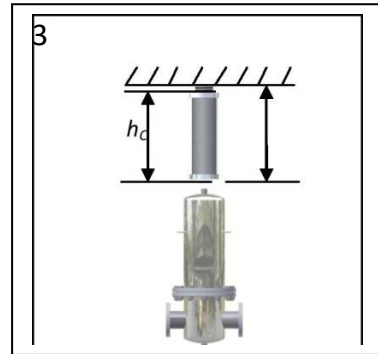
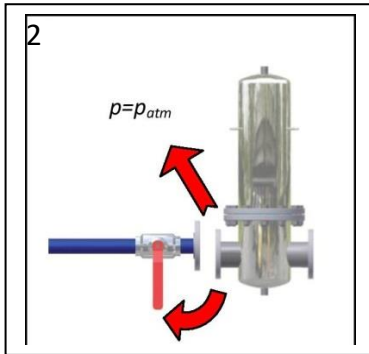
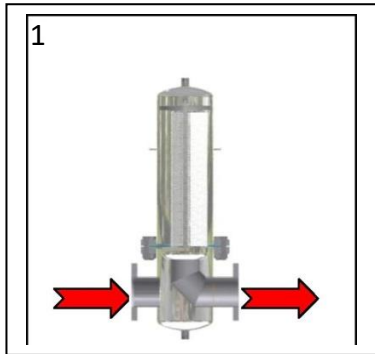
Use genuine spare parts only. Any damage or malfunction caused by the use of unguine parts is not covered by Warranty or Product Liability.



**Installation SF 0006- SF 0192**



Instalation SF 0432- SF 1920



## Maintenance

Filter elements are subject to wear. In order to maintain system efficiency, optimal performance and best air quality, these rules of proper maintenance should be followed:

- Replace VSF filter elements at least once per year or when pressure drop reaches 600 [mbar] or after prescribed number of sterilisation cycles.
- The housing O-ring can be damaged during filter element change. To prevent air leakage and malfunction replace housing O-ring if necessary. For replacement contact manufacturer.
- Damaged components are to be replaced by new ones. If a marked degree of damage is found, the entire filter is to be replaced.
- Filter has been designed for a life of 10 years in normal operating environment. After 10 years periodical checks of filter integrity are strongly recommended for safe operation.
- Carry out a check for leaks once the maintenance work has been finished.

## Warranty exclusion

The guarantee shall be void if:

- The operating instructions were not followed with respect to initial commissioning and maintenance.
- The unit was not operated properly and appropriately.
- The unit was operated when it was clearly defective.
- Non-original spare parts or replacement parts were used.
- The unit was not operated within the permissible technical parameters.
- Unauthorised constructional changes were made to the unit or if parts of the unit that may not be opened were dismantled.

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